

PROJECT: Livestock Grazing and Prairie Dog Management for the Rosebud and Cheyenne River Sioux Reservations, South Dakota, Bureau of Indian Affairs

AGENCY: Bureau of Indian Affairs, Aberdeen, South Dakota

INVOLVED PARTIES: Fourteen disciplinary experts from the BIA and each tribe, and Environmental Planning Strategies, Inc.

The Rosebud and Cheyenne River Reservations requested substantial appropriations from Congress to kill prairie dogs to support their Tribal and member livestock industries. Congress provided the appropriations for FY 1991.

With assistance from contracted a range manager, agricultural economist, prairie dog biologist, and NEPA coordinator/facilitator, Tribal and BIA resource managers and economists were facilitated through the planning process specific to each Reservation. The two teams defined the need for action and quantitative objectives for each Reservation and conducted field surveys (with the contracted wildlife biologist) for prairie dog densities and locations, and for sign of black-footed ferret presence. The contracted team made a detailed evaluation and summary of the scientific literature regarding the interrelationship of the prairie dog ecosystem and livestock grazing, range condition and trend, and economics; the contribution of the prairie dog ecosystem to biodiversity of the Great Plains; and the condition and trend of black-footed ferret habitat on each Reservation.

Scientifically-based economic and environmental impact analyses, including analyses and findings required under the Endangered Species Act for 8 listed species and 7 candidate species, were conducted and documented in the draft EIS. This included cumulative impact analyses for impacts on the biodiversity of the prairie ecosystem and the endangered black-footed ferret.

Since the range and numbers of prairie dogs on the Great Plains had been substantially reduced by agriculture and eradication programs implemented by Federal, state and local governments and private landowners since the early 1900's, the "no action" alternative included the cumulative impacts on both the decreased biodiversity caused by the reduction of the prairie dog ecosystem and the related species dependent on that ecosystem, including the endangered black-footed ferret, swift fox, mountain plover, bald eagle, ferruginous hawk, Swainson's hawk and migrant loggerhead shrike, all either listed or candidate species under the Endangered Species Act.

The geographic scope of the decrease to the prairie ecosystem and the related decrease in the black-footed ferret was first analyzed in terms of the entire range of the black-tailed prairie dog and black-footed ferret, then analyzed in terms of the health of the prairie dog ecosystem on each reservation and the potential for suitable black-footed ferret habitat on each reservation. The methodology (model) used by the US Fish and Wildlife Service, which was based on the most recent scientific literature on determining the suitability of habitat for black-footed ferret, was used to both evaluate the health of the prairie ecosystem, using the assumption that quality black-footed ferret habitat reflects the quality of the prairie dog ecosystem since the black-footed ferret is dependent on healthy prairie dog ecosystems. The cumulative impact analyses for biodiversity and black-footed ferret habitat were then combined, since the methodology used was the same for each issue.

Since each of the other listed or candidate species were dependent to some lesser degree on the prairie dog ecosystem than the black-footed ferret, which was dependent almost 100% on the ecosystem for its life cycle needs, the "worst case" evaluation of the impacts on the black-footed ferret was used as to evaluate the cumulative impacts on the other listed and candidate species dependent to a lesser degree. This used the "bounding" approach to cumulative impact analysis. Each alternative in the array for each reservation, including the "no action" alternative (which had past poisoning programs, but none within the last 5 years) was analyzed for cumulative impacts on the black-footed ferret, then, based on that analysis, the

findings of degree of "affect" under the Endangered Species Act were determined and documented in relation to the determination for the black-footed ferret. The proposed prairie dog poisoning programs on both reservations would have incrementally added to the cumulative impacts of the "no action" alternative, which had lower cumulative impacts because of the lack of recent poisoning programs and a history of livestock overgrazing.

Although the proposed action was highly controversial with threatened litigation, the quality of the cumulative impact analyses, based on scientific studies and methodologies, resulted in well-supported decisions, including the selection of the "no action" alternative for the reservation that more aggressively desired prairie dog poisoning programs and no litigation.